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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,151	01/31/2001	Yibing Michelle Wang	M4065.0828/P828	5495

7590 06/08/2004
Thomas J. D'Amico
Dickstein Shapiro Morin & Oshinsky LLP
2101 L Street NW
Washington, DC 20037-1526

EXAMINER

SUKHAPHADHANA, CHRISTOPHER T

ART UNIT PAPER NUMBER

2625

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,151

Applicant(s)

WANG, YIBING MICHELLE

Examiner

Christopher T. Sukhaphadhana

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6-18,20-23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,6-18 and 20-22 is/are allowed.
- 6) ☒ Claim(s) 23 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

1. The Amendment filed 30 April 2004 has been entered in full.
2. Based on Applicant's amendments, the objections to the specification and claims, and the rejections under 35 USC 112 are withdrawn.

Drawings

3. The drawings were received on 18 May 2004. These drawings are acceptable.
4. Based on the replacement drawings, the objections to the drawings are withdrawn.

Response to Arguments

5. Applicant's arguments regarding **claim 23** in the first full paragraph on page 14 and **claim 25** in the second full paragraph on page 15 of the Amendment filed 30 April 2004 have been fully considered but they are not persuasive.

- a. In regards to both **claims 23 and 25**, Applicant argues in substance that the claims contain subject matter deemed allowable, and thus should be allowed.

The subject matter added to claims 23 and 25 is similar to the material objected to as allowable in claim 5. Claim 5 depended on claims 4, 2, and 1, and the combination of the limitations in those four claims made claim 5 allowable. Claims 23 and 25 do not incorporate the limitations from all four of those claims. The rejections of these claims are below.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 23 and 25** are rejected under 35 U.S.C. 102(b) as being anticipated by Zwirn et al (U.S. Patent 4,445,138, previously cited, “Zwirn”).

8. In regards to **claim 23**, Zwirn discloses a method comprising: obtaining (col 5, lines 11-25) a higher dynamic range signal; forming a histogram (col 5, line 27) between components of the signal indicative of dynamic range levels in the signal, and numbers of those dynamic range levels; finding peaks (col 6, line 57 – col 7, line 14) in said histogram; and transforming (col 7, lines 3-24) said histogram into a modified histogram which keeps a similar specified relationship between said peaks and which represents a lower dynamic range signal, wherein said transforming comprises forming a mapping function based on the original histogram (e.g. col 7, lines 5-6), and using said mapping function to form a modified histogram (col 7, lines 15-17), and the mapping function depends on center portions (e.g. col 7, lines 5-6, intensity level 20) of the peaks (e.g. col 7, lines 5-6, intensity level 20) and widths of the peaks (e.g. col 7, lines 5-6, intensity level 1 to intensity level 31).

9. In regards to **claim 25**, Zwirn discloses a method comprising: obtaining a signal (col 5, lines 11-25) indicative of an image; forming an original histogram (col 5, line 27) indicative of the signal, said histogram including information indicative of numbers of dynamic range levels (col 6, lines 4-11) in the signal; forming a mapping function (col 5, line 50), which relates each

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dynamic range level to positions of peaks in the original histogram (col 6, line 57 – col 7, line 14); and scaling (col 7, lines 3-24) each original histogram based on said mapping function; and determining widths of peak areas in said original histogram (e.g. col 7, lines 5-6, intensity level 1 to intensity level 31), and weighting the dynamic range levels based on said widths of said peak values (col 7, lines 3-6).

Allowable Subject Matter

10. **Claims 1, 3, 6-18, and 20-22** are allowed.

11. The following is an examiner's statement of reasons for allowance: In regards to independent **claim 1**, the reasons for allowance should be evident at least from the first full paragraph on page 14 of the Amendment filed 30 April 2004. **Claims 3, 6-8, and 12-13** contain allowable subject matter at least by dependency on claim 1. In regards to independent **claim 9**, the reasons for allowance should be evident at least from the first full paragraph on page 14 of the Amendment filed 30 April 2004. **Claim 10** contains allowable subject matter at least by dependency on claim 9. In regards to independent **claim 11**, the reasons for allowance should be evident at least from the first full paragraph on page 14 of the Amendment filed 30 April 2004. In regards to independent **claim 14**, the reasons for allowance should be evident at least from the first full paragraph on page 14 of the Amendment filed 30 April 2004. **Claims 15-18 and 20-22** contain allowable subject matter at least by dependency on claim 14.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher T. Sukhaphadhana whose telephone number is (703) 306-4148. The examiner can normally be reached on 9a-5p M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600